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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,350	09/08/2003	Cheri M. Boykin	1792A1	1646

7590 02/06/2006

PPG INDUSTRIES, INC.  
INTELLECTUAL PROPERTY DEPT.  
ONE PPG PLACE  
PITTSBURGH, PA 15272

EXAMINER
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LEE, SIN J

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/657,350

Applicant(s)

BOYKIN ET AL.

Examiner

Sin J. Lee

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 28-34 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-27 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, 15, 16, 35 and 36 is/are rejected.
- 7) ☒ Claim(s) 4, 10-14, 17-24 and 37-40 is/are objected to.
- 8) ☒ Claim(s) 1-40 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. In view of the amendment of September 8, 2005, previous 102(b) rejection on claims 26 and 27 over Sawai et al'969 is hereby withdrawn.
2. Due to new grounds of rejections, the following rejections are made non-final.

#### ***Claim Rejections - 35 USC § 102***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-3, 5-9, 15, 16, 35 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Crutchfield et al (4,365,018).

Crutchfield teaches a self-exposing imaging element, which comprises a support, a light sensitive layer, and a layer containing reagents which will chemically react in a chemiluminescent reaction to generate light which exposes the light sensitive layer when in contact with an original (see Abstract). Crutchfield (col.3, lines 35-37) teaches that the light generating layer and the light sensitive imaging layer can be coated on the same side of the support in either order. Therefore, one skilled in the art would immediately envisage an imaging element, which comprises a support, a light sensitive layer, and the light generating layer in that order.

Crutchfield's *light sensitive* layer teaches present photoactive coating or present photoactive surface (present specification define "photoactive" to mean capability to generate one or more physical or chemical effects upon exposure to certain wavelengths of electromagnetic energy). As the light generating layer, Crutchfield teaches a luminol-containing layer (the luminal being a chemiluminescent compound)

overcoated with a layer of microcapsules containing hydrogen peroxide (see col.6, lines 27-52). Crutchfield also teaches that a hydrogen peroxide solution can be applied over the luminal-containing layer before exposure. Even though in Crutchfield, hydrogen peroxide is not being applied directly over the surface of his light sensitive layer, present claim language does not require such restriction (for example, present specification, pg.7 states that the terms "deposited over" or "provided over" mean deposited or provided on *but not necessarily in contact with the surface*. For example, a coating "deposited over" a substrate does not preclude the presence of *one or more other coating films of the same or different composition* located between the deposited coating and the substrate). Therefore, Crutchfield teaches present inventions of claims 1-3, 5-9, 15, 16, 35 and 36: Since Crutchfield teaches an imaging element which comprises a support and a light sensitive (photoactive) layer, a photoactive properties are being "simulated" on a surface as presently recited in claim 1. The term "light" as used in Crutchfield includes UV as well as visible radiation (see col.2, lines 31-32). Therefore, since Crutchfield's light sensitive layer is being exposed to UV or visible radiation (generated from his light-generating layer), it would be inherent that the hydrophilicity of Crutchfield's light sensitive layer would be demonstrated when exposed to the radiation as presently recited in present claim 15.

4. Claims 1-3, 5-9, 15, 16, 35 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Takimoto et al (4,025,340).

Takimoto teaches (col.2, lines 34-40, col.5, lines 8-13) applying a transparent lacquer on the surface of an electrophotographic photosensitive layer wherein a small

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amount of peroxide such as hydrogen peroxide is being added to the transparent lacquer. Therefore, the reference teaches present inventions of claims 1-3, 5-9, 15, 16, 35 and 36. Since Takimoto teaches a surface of an electrophotographic photosensitive layer, a photoactive property is being "simulated" on a surface as presently recited in claim 1. Since Takimoto teaches present steps of claim 15, it is the Examiner's position that Takimoto's method of applying a transparent lacquer containing hydrogen peroxide onto the surface of an electrophotographic photosensitive layer would inherently be capable of demonstrating hydrophilicity of the photosensitive layer when exposed to visible light as presently recited in claim 15.

***Allowable Subject Matter***

5. Claims 4, 10-14, 17-24 and 37-40 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Neither Crutchfield nor Takimoto teaches or suggests present photoactive surface including titania of claims 4, 24 and 40. Neither Crutchfield nor Takimoto teaches or suggests applying at least partly hydrolyzed polyalkoxysiloxane material as presently required in claims 12 and 17. Neither Crutchfield nor Takimoto teaches or suggests present photoactive material of claim 37 or the partly hydrolyzed polyalkoxysiloxane material of present claim 38.

6. Claims 25-27 are allowed. Neither Crutchfield nor Takimoto teaches or suggests present titania of claim 25. Neither Crutchfield nor Takimoto teaches or suggests present step of claim 26 which is contacting the photoactive surface with at least partly hydrolyzed polyalkoxysiloxane material.

**Response to Arguments**

7. Applicants argue that in the present invention, there is no light generating layer and that since no light is generated in the present invention, it would not be appropriate to consider art which involves generating light as prior art. Thus, applicants argue that Crutchfield reference is not analogous art for present invention. However, MPEP 2131.05 states that "[a]rguments that the alleged anticipatory prior art is nonanalogous art' or teaches away from the invention' or is not recognized as solving the problem solved by the claimed invention, [are] not germane' to a rejection under section 102." Twin Disc, Inc. v. United States, 231 USPQ 417, 424 (Cl. Ct. 1986) (quoting In re Self, 671 F.2d 1344, 213 USPQ 1, 7 (CCPA 1982)). >See also State Contracting & Eng'g Corp. v. Condotte America, Inc., 346 F.3d 1057, 1068, 68 USPQ2d 1481, 1488 (Fed. Cir. 2003) (The question of whether a reference is analogous art is not relevant to whether that reference anticipates. ***A reference may be directed to an entirely different problem than the one addressed by the inventor, or may be from an entirely different field of endeavor than that of the claimed invention, yet the reference is still anticipatory if it explicitly or inherently discloses every limitation recited in the claims.***).

For the reasons stated above, present 102(b) rejections over Crutchfield and Takimoto et al still stand.

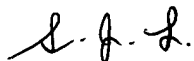
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333.

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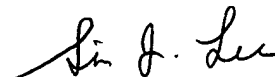
The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Lee  
February 4, 2006



**SIN LEE**  
**PRIMARY EXAMINER**